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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/534,960

11/23/2005

Peter D Kozel

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EXAMINER

PEFFLEY, MICHAEL F

ART UNIT

PAPER NUMBER

3739

MAIL DATE

DELIVERY MODE

10/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/534,960	<b>Applicant(s)</b> KOZEL, PETER D	
	<b>Examiner</b> Michael Peffley	<b>Art Unit</b> 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 2-7, 10-15 and 25-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9, 16-24 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Applicant's arguments and amendments, filed March 31, 2008, have been fully considered by the examiner now of record. It is noted that claims 2-7, 10-15 and 25-34 remain withdrawn from consideration as being directed to an invention non-elected without traverse. The following is a complete response to the March 31, 2008 communication.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 16, 18, 19, 24 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Turkel (5,354,296).

Turkel provides an ablation apparatus comprising a shaft (332 – Figure 3a) and a tissue ablating electrode (304) supported along the shaft. The electrode has proximal and distal (i.e. top and bottom) end portions, and a middle portion of the electrode. The middle portion of the electrode has a greater surface area per unit length than the proximal and distal ends. See Figure 3a. The electrode comprises a generally cylindrical conductor, and the examiner maintains the structure would inherently and necessarily yield a middle portion that would introduce edge effects (as recited in applicant's Claims 16 and 35).

Claims 1, 8, 9, 16-19, 24 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Billings et al (5,395,363).

Billings et al disclose an ablation electrode assembly comprising a shaft (extending through electrode 50 – See figure 1) with an electrode (50) supported on the shaft. The electrodes has proximal and distal ends, and a middle portion. As shown in Figure 3, the middle portion comprises a larger surface area than the end portions, and thus has a greater surface area per electrode length. This structure would inherently and necessarily introduce edge effects in the middle portion of the electrode. The electrode is a conductive cylinder. Billings et al also disclose providing a non-stick coating (i.e. masking) along the electrode, with portions of the coating worn away to create “edge effects” or transmission of currents. See Figure 4, and column 6, lines 1-41.

Claims 1, 8, 9 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Laufer et al (5,972,026).

Laufer et al disclose an ablation electrode device comprising a shaft (230 – Figure 2) and a tissue ablation electrode (210 or 220) supported along the shaft. The electrode has a greater surface area per unit length in the middle section of each electrode (see Figure 2). A proximal and distal end of each electrode is embedded in a non-conductive support thereby masking these portions of the electrode, and each electrode is generally cylindrical in shape. The electrodes are also supported on the distal end of a catheter.

Claims 1, 8, 9, 16-19, 22-24 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Storz (3,901,242).

Storz discloses an ablation device comprising first and second ablation electrodes (1,2) supported on a non-conductive shaft (3,4 – Figures 4 and 5). As shown in Figure 3, the electrode windings at the ends of the loop member (i.e. proximal and distal ends) are spaced much greater than the windings along the middle portion of the loop member. The electrodes are provided as helices (i.e. non-coiled) with an insulating support (12) that "masks" portions of each electrode (col. 3, lines 22-40). The electrodes are wound about the shaft creating a generally cylindrical electrode, and the examiner maintains that greater current density (and "edge effects") would inherently and necessarily be created in the middle portion where the winding are closer together. As shown in Figures 4 and 5, at least a portion of the electrodes are mounted on the shaft such that a portion of the electrode surface is below an annular surface of the shaft (i.e. the electrode are embedded in the insulative shaft). Also, an upper surface of the electrode may be substantially flush with the surface of the shaft (Figure 4).

Claims 1, 8, 9, 16-21, 24 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Langberg (5,230,349).

Langberg discloses an ablation apparatus comprising a shaft (26) which supports a tissue ablating electrode (20 – Figure 3). The electrode is tapered at the proximal (23,25) and distal ends thereby providing a middle portion having a greater surface area per unit length. The electrode is provided with masking (23) at the proximal portion,

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and the electrode is provided with a shape that creates “edge-effects” in the middle portion of the electrode (see energy distribution lines of Figure 3). The electrode is generally cylindrical, and supported at the distal end of a catheter (24). The examiner maintains the catheter is inherently steerable, and the examiner also notes that the claims do not recite any particular structure associated with steering the catheter.

### ***Response to Arguments***

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Owens et al (5,879,348) disclose a catheter device having a balloon at the distal end. The balloon has an electrode surface that, when expanded, has a greater surface area in the middle of the electrode compared to the ends. Wang et al (5,462,545) disclose another catheter device that has an electrode located on the distal end of the catheter. Wang et al disclose various electrode patterns that may be created by making portions of the catheter to create conductive and non-conductive portions. Sorochenko (4,637,392) disclose another electrode device comprising a generally cylindrical electrode that has a middle portion with a greater diameter, and hence a greater surface area, relative to the proximal and distal ends of the electrode member.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Peffley whose telephone number is (571) 272-4770. The examiner can normally be reached on Mon-Fri from 7am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Peffley/  
Primary Examiner, Art Unit 3739

/mp/  
October 13, 2008